

Heritage impact assessment: removal of the *Jacaranda mimosaeifolia* trees at the intersection of West and Burger Streets, Pietermaritzburg, for the alignment of the Msunduzi Integrated Rapid Public Transport Network



archaic consulting

architecture: research: conservation: anthropology: impacts consulting
debbie whelan
po box 21834
mayors walk
3208

tel: 033 3442522
fax: 033 3443122
cell: 083236 0410
email: debbie@archaic.co.za

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1. Introduction

Debbie Whelan of Archaic Consulting was requested by Liandra Scott-Shaw to assess the impact of the removal of 22 *Jacaranda mimosaefolia* trees from the intersection of West and Burger Streets in Pietermaritzburg. This is required in order to construct a relief road for traffic during the construction of the alignment of the Integrated Rapid Bus Transport route down the centre of Church Street. The context of recommendations in this report take into account the alien nature of the tree itself in terms of conservation policy in South Africa, the problematic nature of older examples of the tree, and at the same time the needs for a city to have street trees to provide *genus loci*, shade and green lungs.

2. Methodology and statement of expertise

Debbie Whelan of Archaic Consulting (Pty.) Ltd has extensive experience with regards to Heritage work, having carried out numerous Heritage Impact Assessments in the last decade. Amongst these are a number of reports which deal with historical and cultural landscape studies.

In order to carry out the assessment and submit recommendations, it was important to establish the full and current intentions of the route. For this, input was required from the Msunduzi Municipality.¹ It is important to note that it is not the trees, *per se*, that are protected, but concerns over a historical landscape that boasted tree-lined streets in the past.

Sivest provided Archaic Consulting with a map of the trees to be removed, following which photographs of the trees were taken in order to be able to correctly assess the current state of the trees, their position on the street, and the nature of the green lung that they provide.

For this particular study, historical information was sourced through the records of the Pietermaritzburg City Council, particularly the Corporation Year Books and the included reports of the Superintendent of Public Parks. In addition, the author consulted the photographic index at the KwaZulu-Natal Provincial Archives Repository for relevant photographs of the intersection, as well as salient published works on the city of Pietermaritzburg. Further, historical aerial photography showed different trees planted in different eras, showing a fluctuation in the living historical landscape.

¹ Please note that despite initial correspondence dated 14 December 2016, and subsequent conversations and emails, the Msunduzi Municipality has not furnished any information with regards to the finally agreed alignments.



Fig 1: Drawing supplied by consultants indicating the routing and the subsequent impact for the removal of trees - West Street runs from left to right.

Given the dearth of information provided by the Msunduzi Municipality with regards to the effects of the full alignment, the drawing provided by Sivist in Figure 1 above shows that the major route in the intersection is that which runs along West Street, with the minor route affected being Burger Street. The street widening on Burger Street has thus supposedly less impact on the trees than the West Street widening.

3. Historical background to the street planting in Pietermaritzburg

Tree planting was a fundamental component of laying out the city: McCracken records that the first planting was carried out by Voortrekker settlers, to provide shade. Syringa trees, introduced by Daniel Lindley had been planted along the streets, indicating its layout. 'By the mid-1850s many streets were lined with oaks, bluegums (allegedly planted as lighting conductors', the occasional weeping willows and large numbers of syringas, which heavily perfumed the air. GH Mason thought the town had the appearance of a "vast panorama", In 1854 Bishop Colenso commented on the town looking "exceedingly pretty from the number of trees...which rise up in every part of it" (McCracken in Laband and Haswell 1988:59). He records that by 1900 a new phase began, including Jacarandas, Australian Chestnuts and Feather Palms (Laband & Haswell 1988: 59).

Meineke and Summers (1983) record comments by Mary Anne Broome, from 1877. She notes that the town 'only consists of a few straight and grass grown streets which are only picturesque at a distance on account of their having trees on each side' (Meineke & Summers 1983:70). They continue by noting that 'Most of the wider streets were tree lined, but when kerbing channeling and paved footpaths were laid, problems sometimes resulted. In 1898 an ambitious footpath paving scheme was sanctioned in Church Street from Government House to Boschoff Street. The Works Committee recommended that the best of the trees on the footpaths of Church Street be allowed to remain, but the Council did not accept this recommendation, deciding that all trees should be removed, except for the two large oak trees in front of the Standard Bank, and these remained a landmark for some years to come' (Meineke & Summers 1983: 89).

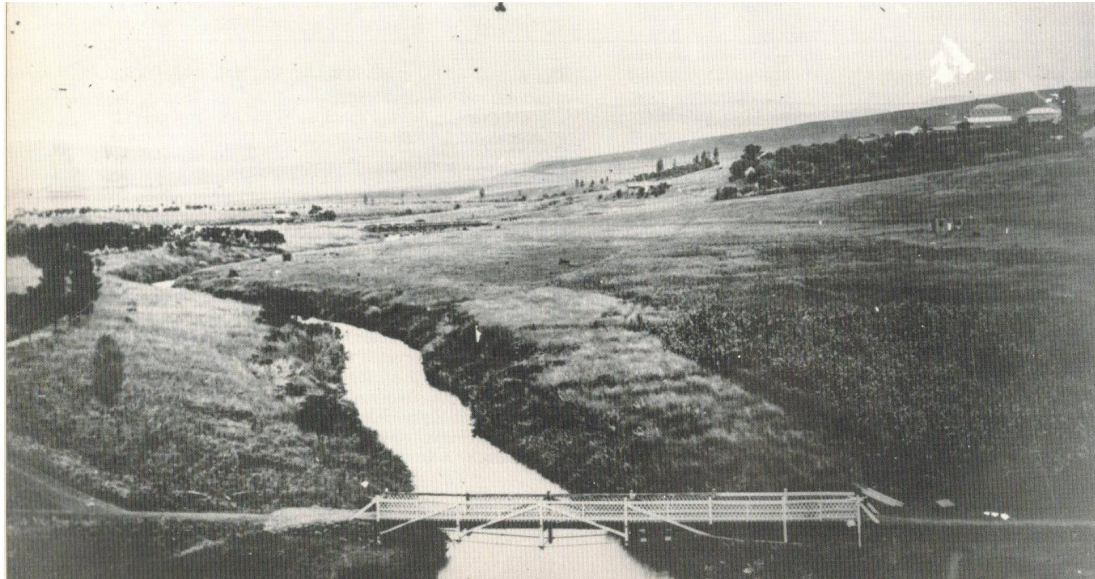


Fig 2: Row of trees to the right of the picture shows planting at the Burger Street / West Street intersection as early as 1866 (Laband & Haswell 1988: 39).

Street tree planting comprised a significant component of the responsibilities of the Superintendent of Public Parks for the city of Pietermaritzburg in the 20th century. In the Corporation Year Books, most years testify to the planting of varieties of trees along specific routes in the centre of the city, in addition to trees being removed from time to time, as a result of old age and decay. The types of trees consisted of various species, including exotic hardwoods and softwoods such as the *Jacaranda mimosaeifolia* and indigenous varieties. There did not appear to be any specific plan as to what type of tree was planted where: in 1929, the Superintendent of Public Parks noted that 'A fairly extensive street tree planning programme was carried out; *Jacaranda mimosaeifolia*, *Castanospermum australe* (Australian Chestnut) and *Cedrela Toona* (Indian Mahogany) being the species chosen to line College Road, Upper Prince Alfred Street and Victoria Road Extension, respectively (City of Pietermaritzburg 1930: 89).



Fig 3: 1959 aerial photograph showing extent of planting of the trees in the College Road precinct

4. Extant street planting in West and Burger Streets



Fig 4: Google Earth image showing the same intersection in 2016

The Google Earth image above shows the denser concentration of *Jacaranda mimosaeifolia* along West Street, with lesser impacts on the cross street of Burger Street: very little street planting remaining on the lower section to the upper part of the image, and sporadic planting in the lower part of the image.



Fig 5: Looking down West Street towards the College Road Bridge: all of the trees in the figure are affected.



Fig 6: View down West Street from Burger Street towards the Msunduzi River – all of the trees in the figure are affected.



Fig 7: View along Burger Street showing buildings and no trees to the western edge – there is no impact on this section of the street



Fig 8: View showing the same edge, without trees



Fig 9: View showing trees at the intersection of Burger and West Streets – note the brick lined furrow. All of the trees in the figure are affected.



Fig 10: View of intersection of Burger and West Streets showing the majority of the trees in the area below the intersection, all of which are affected by street widening



Fig 11: View of brick lined stormwater drain running down West Street – lower section



Fig 12: View of street in the lower section with affected trees



Fig 13: Brick lined furrow in Burger Street

Note that the brick-lined furrows and stormwater drains are also under threat in the event of the widening of the roads as intended.



Fig 14: View down West Street towards the Msunduzi River – note stormwater drains



Fig 15: View from the upper section of West Street towards the intersection showing potentially affected trees



Fig 16: View up West Street at the intersection of Burger and West Streets. All the trees in the photograph are affected by street widening



Fig 17: Looking up Burger Street towards Moses Mabhida



Fig 18: View up Burger Street – minimum impact on trees in the initial section



Fig 19: View at intersection with trees on the corner which are affected

5. Comments on the removal of *Jacaranda mimosaeifolia* and recommendations

Jacaranda mimosaeifolia can live beyond a century, meaning that should these trees remain, they have the potential to live for many more years. At the same time, this species is identified as a Category '1b in Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga and North-West, but is not listed for urban areas in Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga and North-West, or within 50 metres of the main house on a farm in Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga and North-West, for trees with a diameter of more than 400 mm at 1000 mm

height...provided such trees are located outside riparian areas.' This speaks to established tree' (Environment News South Africa 2017). This is explained by the following excerpt from *Publication of the amended Alien and Invasive Species Regulations* which notes that 'The Department has endeavoured to take a balanced approach for species that have value. For example, many invasive gum (*Eucalyptus*) species from Australia have a very negative impact on water, biological diversity and in terms of wild fires. But they are also an excellent source of wood, shade, beauty and food for bees. The Regulations make provision for optimizing their benefits, whilst curtailing their most negative impacts.....Another example would be the much-loved jacaranda tree (*Jacaranda mimosifolia*), from South America. Whilst invasive in parts of the country, the Department has accommodated public sentiment by not listing the species in urban areas, and allowing large specimens within 50 metres of farm homesteads. "In these urban areas, there will be no control required for the species. It will be as if we are treating urban areas as plantations, and the trees can continue to be grown as street trees and ornamental garden trees' (Department of Environmental Affairs.2014). Removing these trees as a result of environmental legislation then is not necessary, given their official exclusion for removal in urban areas.

There is evidence of an active street planting scheme in the city, from its origins as a Trekker town in 1838, which continued through the twentieth century with systematic removal and replanting. This forms part of a continuous historical streetscape.

Whilst it is not clear exactly when these specific trees were planted, the issue is situated around this continuous historical streetscape and significant verdant edges to the streets in Pietermaritzburg. This is the area of assessment.

The lack of information as to the extent of the full alignment is unknown, despite continued efforts to engage with the city. Whilst it is understood that this is to be a relief road to act as a traffic deviation during the course of the construction of the intended Msunduzi Integrated Rapid Public Transport Network, this has not been confirmed and the decision is thus made on the information at hand, which is that the alignment as it stands runs along Moses Mabhida Road, and then travels down Church Street out towards Raisethorpe.

From an historical point of view, then, there is no need to remove the *Jacaranda mimosifolia* trees from their current position. It is RECOMMENDED that the trees remain, given the lack of information as to the full extent of the route.

6. References

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